

Nos. 2024-1003, 2024-1018

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

GEOSCOPE TECHNOLOGIES PTE. LTD.,

Plaintiff-Appellant,

v.

GOOGLE LLC, APPLE INC.,

Defendants-Appellees.

Appeals From the United States District Court for the Eastern District of Virginia,
Nos. 1:22-cv-01331-MSN-JFA and 1:22-cv-01373-MSN-JFA,
Judge Michael S. Nachmanoff

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REPRESENTATIVE PATENT CLAIMS

U.S. Patent No. 8,406,753 – Claim 1

1. A method of determining the location of a mobile device in a geographic region comprising the steps of:

- (a) providing calibration data for each of one or more calibration points in a geographic region, said calibration data having one or more characterizing parameters;
- (b) generating one or more sets of grid points for said calibration data;
- (c) receiving at least one network measurement report from a mobile device at an unknown location in said geographic region;
- (d) evaluating said at least one network measurement report with each of said sets of grid points as a function of select ones of said characterizing parameters;
- (e) selecting a set of grid points as a function of a predetermined criteria; and
- (f) determining the location of a mobile device in said geographic region as a function of said selected set of grid points.

U.S. Patent No. 7,561,104 – Claim 1

1. A method for determining a location of a mobile station, comprising:

providing a database of previously-gathered calibration data for a predetermined region in a wireless network, wherein said network includes a first transmitter and a second transmitter;

collecting observed network measurement data including a first signal characteristic from said first transmitter and a second signal characteristic from said second transmitter;

determining which of said first and second signal characteristics has a greater magnitude;

modifying said observed network measurement data using the greater magnitude signal characteristic; and

comparing said modified network measurement data with said database of calibration data to thereby determine the location of the mobile station.

U.S. Patent No. 7,561,104 – Claim 2

2. The method of claim 1 wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region.

CERTIFICATE OF INTEREST

Counsel for Defendant-Appellee Apple Inc. certifies the following:

1. The full name of every entity represented by me is:

Apple Inc.
2. The parties named in the caption are the real parties in interest.
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of Appellee are as follows:

None.
4. The names of all law firms and the partners or associates that appeared for Appellee in the trial court or are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

GIBSON, DUNN & CRUTCHER LLP: Anthony David Brzozwski, II, Wendy W. Cai, Kim Do, Ryan Iwahashi, and Andrew William Robb

POTTER ANDERSON & CORROON LLP: Craig C. Reilly

WALKER STEVENS CANNOM LLP: Bethany Stevens and Hannah Cannom
5. There are no other pending cases that may affect or be affected by this appeal.
6. There are no organizational victims or bankruptcy case debtors or trustees in this appeal.

Dated: January 26, 2024

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1. The full name of every entity represented by me is:

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2. The parties named in the caption are the real parties in interest.
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of Appellee are as follows:

XXVI Holdings Inc.; Alphabet Inc.
4. The names of all law firms and the partners or associates that appeared for Appellee in the trial court or are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

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KAUFMAN & CANOLES, P.C.: Steven E. Noona, Clark J. Belote
5. There are no other pending cases that may affect or be affected by this appeal.
6. There are no organizational victims or bankruptcy case debtors or trustees in this appeal.

Dated: January 26, 2024

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STATEMENT OF RELATED CASES

Pursuant to Federal Circuit Rule 47.5, counsel for Apple Inc. and Google LLC state that no other appeal in or from either *Geoscope Technologies Pte. Ltd. v. Google LLC*, No. 1:22-cv-01331- MSN (E.D. Va.) (“Google Action”) or *Geoscope Technologies Pte. Ltd. v. Apple Inc.*, No. 1:22-cv-01373-MSN (E.D. Va.) (“Apple Action”) was previously before any appellate court. Although the appeals from the Google and Apple Actions were initially docketed separately, they have been consolidated. ECF No. 11.

There are four pending related petitions for *inter partes* review (“IPR”) that were filed before final judgment issued in the Google and Apple Actions, challenging the four patents at issue in this appeal:

- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01209 (filed August 10, 2023)
- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01210 (filed August 10, 2023)
- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01211 (filed August 10, 2023)
- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01212 (filed August 9, 2023)

There are two additional pending related IPR petitions that were filed after final judgment issued in the Google and Apple Actions, and after Geoscope filed its notice of appeal, challenging two of the patents at issue in this appeal:

- *Apple Inc. v. Geoscope Technologies Pte. Ltd.*, IPR2024-00031 (filed October 31, 2023)
- *Apple Inc. v. Geoscope Technologies Pte. Ltd.*, IPR2024-00032 (filed October 31, 2023)

There are two additional pending IPR petitions challenging two patents that were asserted in the Google and Apple Actions, but are not at issue in this appeal:

- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01213 (filed August 9, 2023)
- *Google LLC v. Geoscope Technologies Pte. Ltd.*, IPR2023-01214 (filed August 9, 2023)

None of these IPR proceedings has yet reached a decision on institution.

INTRODUCTION

This Court should affirm the district court’s judgment that the asserted claims are not patent-eligible under 35 U.S.C. § 101. At the heart of the claims is the concept of determining location based on data—an activity that humans have long performed, even before the invention of computers. The claims require only broad, basic functions, such as collecting, organizing, and analyzing data, to implement this concept. Thus, as the district court explained, at *Alice* Step One the claims are directed to the abstract ideas of “determining location based on data” (’104 Family) and “determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device” (’753 patent).¹ Appx10; Appx20. At *Alice* Step Two, the claims lack an inventive concept beyond that abstract idea because, for instance, they require only well-known and conventional components such as a “database,” “processor,” or “circuitry” functioning in their routine manner. Appx17-18; Appx22-23. The claims also fail to specify how basic steps, such as “generating” grid points, are performed. Appx23.

Contrary to Geoscope’s primary argument on appeal, the “grid point” data element of the claims does not save the claims from ineligibility. As the district

¹ The term “’104 Family” refers to U.S. Patent Nos. 7,561,104 (the “’104 patent”), 8,400,358 (the “’358 patent”), and 8,786,494 (the “’494 patent”). The term “’753 patent” refers to U.S. Patent No. 8,406,753.

court explained, a “grid point”² merely requires organizing data, which itself is abstract. Appx20-23. Geoscope fails to explain otherwise and, notably, makes no attempt to distinguish the claims from the numerous claims to collecting, organizing, and analyzing data, including to determine location, that this Court has held ineligible. Instead, Geoscope incorrectly attempts to frame the claimed “grid points” as a novel data structure—when they are nothing more than generically structured data—and attempts to rely on elements found nowhere in the claims, conclusory assertions, or additional abstract concepts. All are insufficient for patent eligibility.

STATEMENT OF THE ISSUES

Whether the appealed claims of the ’753 patent and ’104 Family are patent-ineligible under 35 U.S.C. § 101.

STATEMENT OF THE CASE

These consolidated appeals arise from two separate lawsuits filed against Google and Apple on November 22, 2022 and December 1, 2022, respectively. Appx257-348; Appx352-442. In both cases, Geoscope asserted the same six patents: U.S. Patent Nos. 7,561,104 (the “’104 patent”) (Appx51-70), 8,400,358 (the “’358 patent”) (Appx71-91), 8,786,494 (the “’494 patent”) (Appx92-111) (collectively,

² As discussed below, the district court construed “grid point” as “a point associated with representative calibration data for an area.” Appx2752. The court construed “calibration data” as “modified or unmodified network measurement data associated with a geographic location.” Appx2740.

the “’104 Family”), 8,406,753 (the “’753 patent”) (Appx111-218), 9,097,784 (the “’784 patent”) (Appx219-235), and 8,320,264 (the “’264 patent”). Only the ’104 Family and the ’753 patent are at issue in this appeal.

I. The Asserted Patents

A. The ’753 Patent

The ’753 patent relates to a method and system for “determining the location of a mobile device in a geographic region,” and purports to add a technique for geolocating a mobile device. *See, e.g.*, Appx187 (5:57-59, 6:8-10). The first step of the claimed method involves collecting “calibration data for a number of locations within a geographic region,” and then “gather[ing] and analyz[ing]” the data to associate the calibration data with “particular points (e.g., ‘grid points’) within the geographic region.” Appx185 (2:26-35); *infra* pp. 8-10 (district court’s constructions of “grid point” and “calibration data”). In other words, the method uses a directory of known locations with associated calibration data. Next, the mobile device “to be geolocated” collects network signal measurements that “may be compared with the data associated with the various grid points [*i.e.*, the directory] to estimate the location of the mobile device.” Appx185 (2:36-39).

Stripped of jargon, the appealed claims of the ’753 patent, claims 1 and 32, are directed to a location-determination method in which a database of known

locations is compiled and then compared to a mobile device's network measurements to estimate the mobile device's location. The claims recite:

1. Collecting measurement data from various locations (*"providing calibration data for each of one or more calibration points in a geographic region, said calibration data having one or more characterizing parameters"*),
2. Organizing that measurement data into one or more directories of known locations (*"generating one or more sets of grid points for said calibration data"*),
3. Comparing received measurement data from a mobile device at an unknown location to the one or more directories of known locations (*"receiving at least one network measurement report from a mobile device at an unknown location in said geographic region"* and *"evaluating said at least one network measurement report with each of said sets of grid points as a function of select ones of said characterizing parameters"*),
4. Selecting the most suitable directory based on unspecified criteria (*"selecting a set of grid points as a function of a predetermined criteria"*), and
5. Comparing the received measurement data from the unknown location to the measurement data in the selected directory of known locations (*"determining the location of a mobile device in said geographic region as a function of said selected set of grid points"*).

Appx214 (59:14-31); *see also* Appx216 (63:49-67). As to the step of "generating one or more sets of grid points for said calibration data," calibration data is organized such that representative calibration data for an area can be associated with a "grid point." *See, e.g.,* Appx189-190 (10:29-11:21); *see also* Appx2752. The specification states that this can be accomplished by, for instance, "assign[ing]" the calibration data to the "closest fixed grid point" or by using "increasingly stringent

tests of statistical sufficiency.” Appx189-190 (10:29-11:21). Thus, a set of grid points is akin to a directory into which calibration data is organized. *See id.* The specification provides various options for accomplishing this result, but it does not say that the data must be structured in any particular way. *See* Appx111-218. The claims likewise require no particular structure.

Claims 1 and 32 of the ’753 patent are independent claims: method claim 1 and system claim 32. The claims are materially the same, except that claim 32 recites using a conventional “database” and “processor” as part of the method. Appx214 (59:14-31); Appx216 (63:49-67). Thus, the claims are not specific to any particular type of location technology, whether software or hardware. Rather, they are directed to the idea of compiling different types of data into a collection against which new data (*i.e.*, the network measurements taken by the mobile device of an unknown location) can be compared. Appx214 (59:14-31); Appx216 (63:49-67). The claims do not specify any specific method of organizing the historical calibration data as part of the “generating” step, and thus do not specify how the compilations are made or how the recited grid points are generated and structured. The claims likewise do not specify how new data is compared to the historical data.

B. The ’104 Family

The ’104 Family claims priority to the same provisional application as the ’753 patent. Appx51; Appx71; Appx92; Appx111. The patents in the ’104 Family

share the same specification and purport to add a technique for geolocating a mobile device. Appx51-110. The patents relate to determining the location of a “mobile station” (*e.g.*, a mobile device like a cell phone) using observed network data and previously collected “calibration data,” such as “signal strength, round trip time, time difference of arrival (TDOA), etc.” Appx92 (Abstract); Appx103 (1:28-31).³

The '104 Family patents concede that prior art mobile devices were already capable of using observed data at an unknown location, along with previously collected calibration data at known locations, to determine the device's location. Appx103 (1:20-39). The patents state that when data was collected indoors, “the signal strengths of signals received from the serving and/or neighboring base stations tend[ed] to be lower than the strength of the signals received by a wireless device located outdoors.” *Id.* at 1:40-43. The patents also state that the lower signal strengths indoors could cause poor location estimates, and propose “[m]odifying the calibration data obtained outdoors” as “a way to simulate indoor calibration data characteristics.” *Id.* at 1:48-49.

The claims of the '104 Family themselves, however, are not limited to modifying *outdoor* calibration data to account for devices located *indoors*. Instead, the claims just recite “modifying” observed network measurement data before using

³ Citations are to the '494 patent, but the '358 and '104 patents share the same disclosures.

that modified data to determine location. The specification states that this “modifying” step can be achieved by “subtracting or adding” to and from the data. Appx106 (7:7-10). The claims themselves do not specify how to modify the data.

The appealed claims are all dependent claims: claim 2 of the ’104 patent, claim 18 of the ’358 patent, and claims 4 and 26 of the ’494 patent. These claims involve materially the same functions. To illustrate the functions that are recited in these dependent claims’ corresponding independent claim limitations, below is claim 1 of the ’494 patent, which is not at issue on appeal but is the independent claim from which appealed claim 4 depends:

1. Providing a database of data (*“providing a database of previously-gathered calibration data for a predetermined region in a wireless network;”*),
2. Collecting different data (*“collecting observed network measurement data, the observed network measurement data collected by the mobile station and transmitted to the network or collected by the network;”*),
3. Modifying the collected data in an unspecified manner (*“modifying said observed network measurement data; and”*), and
4. Comparing the data to the database determine a location (*“comparing said modified network measurement data with said database of calibration data to thereby determine the location of the mobile station.”*).

Appx108 (12:10-22). As shown above, the claims do not specify how to perform these functions.

In addition, each of the appealed claims adds the same limitation: “wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region.” Appx67 (Cl. 2), Appx90 (Cl. 18), Appx108 (Cl. 4), Appx109 (Cl. 26). The specification states that non-uniform grid points (like the “grid points” in the ’753 patent claims) “represent an area of collected calibration data,” but that a non-uniform grid may consist of points that are not evenly distributed. Appx104 (3:65-67). The claims do not specify how the non-uniform grid points are created or structured, and recite only “provid[ing]” a database comprising them.

The appealed claims have a few minor differences between them. For example, claim 1 of the ’358 patent recites “circuitry” to carry out the functions of collecting, modifying, and comparing data. Appx90 (13:7-18, 13:27-29). In addition, claim 2 of the ’104 patent and claim 26 of the ’494 patent each recite mathematical concepts: “determining which” of two signal characteristics “has a greater magnitude” and “determining an average value” of selected signal characteristics, respectively. Appx67 (11:66-12:18); Appx109 (14:7-23).

II. The District Court’s Claim Construction Order

On July 19, 2023, the district court issued its claim construction order, which

defined certain terms of the claims on appeal. Appx2733-2766.⁴ Geoscope does not challenge the district court's construction of any term.

For instance, relevant to all of the claims on appeal, the district court construed the term “grid point” to mean “a point associated with representative calibration data for an area.” Appx2752. Geoscope argued that the term can refer to a “location” and that it can be “associated with” calibration data, rather than being “representative of” calibration data. Appx2751. The court rejected Geoscope's arguments, noting that the passage from the specification's Abstract on which Geoscope relied did not answer the relevant question of “what a grid point *is*,” and instead relates to how grid points are created. *Id.* In adopting Defendants' proposed construction, the district court observed that the '104 Family specification discusses that non-uniform grid points, or NUGs, “represent[] the signal characteristics and/or calibration data over a given region.” *Id.* The court thus reasoned that the grid point is not the region itself, and instead is a point that is representative of an area. Appx2751-2752.

Also relevant to all of the claims on appeal, the district court construed “calibration data” to mean “modified or unmodified network measurement data associated with a geographic location.” Appx2740. The court rejected Geoscope's

⁴ For ease of reference, citations are to the memorandum opinion issued in the Google case, which is substantively identical to the memorandum in the Apple case (Appx2767-2800).

argument that calibration data is broader than network measurement data and is not required to be associated with a geographic location. Appx2738-2740.

The district court also construed the terms “observed network measurement data” and “position determining equipment” from certain claims of the ’104 Family and “network measurement report” and “evaluating said at least one network measurement report . . .” from certain claims of the ’753 patent. Appx2741-2756. Geoscope does not challenge the court’s constructions, and does not contend that these constructions are material to the Section 101 issues on appeal.

III. The District Court’s Grant of Judgment on the Pleadings

On June 27, 2023, after they had answered their respective complaints, Defendants filed a motion for judgment on the pleadings, explaining that all of the asserted claims, including those of the ’753 patent and ’104 Family, are not patent-eligible under Section 101.⁵ Appx2374-2420 at Appx2386-2402; Appx2801-2832 at Appx2809-2823; Appx446-483; Appx484-548. As noted, the district court issued its claim construction order on July 19, 2023. Appx2733-2766. On September 18,

⁵ In view of the district court’s claim construction order, the parties stipulated to judgment of noninfringement of the ’264 patent claims and invalidity of the ’784 patent claims and certain claims of the ’104 Family that are not at issue in this appeal. Appx2937-2941, Appx2942-2947. The district court entered partial judgment based on that stipulation. Appx2948-2949, Appx2950-2951. Thus, the district court’s decision on the Rule 12(c) motion addressed only the remaining asserted claims of the ’753 patent and ’104 Family. Appx25.

2023, after an August 11, 2023 hearing, the court granted Defendants’ motion and issued a 23-page opinion detailing its analysis of the claims’ invalidity under Section 101.⁶ Appx1-23; Appx47-48; Appx2867-2936.

A. ’104 Family

The district court first addressed the then-asserted claims of the ’104 Family: claims 1 and 2 of the ’104 patent, claims 15 and 18 of the ’358 patent, and claims 1, 4, 25, and 26 of the ’494 patent. Appx5-18. The court did not agree with Defendants that claim 1 of the ’494 patent is representative of the ’104 Family claims. Appx8-9. The court thus “address[ed] the distinguishing characteristics of” the various claims separately. *Id.* After its claim-by-claim analysis, the court ultimately determined that “notwithstanding these distinctions,” all of “the asserted claims are still not patent eligible.” *Id.*

Alice Step One. The court held that the claims are “directed to the abstract idea of determining location based on data.” Appx10. The court explained that “[t]he claim recites a method for ‘determining a location of a mobile station’ by (1) ‘providing a database’ of previously-collected data; (2) ‘collecting’ observed network measurement data, (3) ‘modifying’ that data; and (4) ‘comparing’ the modified data with the database.” Appx10. The court stated that this “basic function

⁶ For ease of reference, citations are to the memorandum opinion issued in the Google case, which is substantively identical to the memorandum in the Apple case (Appx24-46).

of determining location based on the collection and analysis of data has been performed by humans throughout history.” Appx10.

The court observed that this Court has in numerous instances held ineligible claims that similarly required “the mere collection, analysis, and outputting of data,” including for the purpose of location determination. Appx10-11 (citing *Int’l Bus. Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1378 (Fed. Cir. 2022); *Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018); *Automated Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App’x 989, 991 (Fed. Cir. 2018)); Appx15. The court held that, like the ineligible claims in those cases, the asserted claims of the ’104 Family “focus on the abstract concept of data collection and modification for the purpose of geolocation of mobile devices.” Appx11.

In addition, contrary to Geoscope’s assertions, the court held that the “asserted claims here do not require the use of technology in an unconventional manner” or “an unconventional configuration of components.” Appx12. The court stated, “Geoscope’s purported technological improvement is simply the modification of data, which is itself an abstract idea that is not patent eligible.” *Id.*

The court further rejected Geoscope’s argument that “the asserted claims improve on conventional geolocation methods by ‘modifying the observed data to account for’ disparities between calibration data (typically collected outdoors) with data collected indoors, as well other disparities caused by various environmental factors.” Appx13. In particular, the court held that “the asserted claims themselves are not so limited.” *Id.* The court explained that although “Geoscope identifie[d] some language in the specification and the Complaint about the elimination of disparities in collecting and comparing indoor and outdoor data, its arguments are not tethered to the *asserted claims* themselves.” *Id.* (internal citations and quotations omitted). The court held that the claims “simply recite[] a method whereby one must ‘modify[] said observed network measurement data,’ without any specificity as to *how* to carry out the ‘modifying’ function.” *Id.*

The court then specifically addressed the additional elements found in the appealed claims of the ’104 Family: dependent claims 2 of the ’104 patent, claim 18 of the ’358 patent, and claims 4 and 26 of the ’494 patent. Appx15-17. For example, the court determined that additional elements in certain of the claims did not change its conclusion because these limitations are simply additional “abstract ideas or well-known or conventional components used in a normal manner”—*e.g.*, “circuitry” in claim 18 of the ’358 patent, “determining the greater of two signal

characteristics” in claim 2 of the ’104 patent, and “comput[ing] the average of different signal characteristics” in claim 26 of the ’494 patent. Appx16.

The court also addressed the “grid point” limitation shared by all of the appealed claims: “wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region.” Appx16-17. The court held that this limitation also does not save the claims from ineligibility, as they “merely involve collecting a certain kind of data without requiring a new or improved manner of collecting, using, or creating that data.” *Id.* The court further explained that these claims “do not articulate with specificity *how* the grid points are determined or analyzed.” Appx17.

Alice Step Two. At *Alice* Step Two, the district court held that “none of the asserted claims of the ’104 Patent Family advance an inventive concept amounting to ‘significantly more’ than the abstract idea.” Appx17-18. The court rejected Geoscope’s argument that “the modification of the data supplies the inventive concept,” determining that “Geoscope fails to identify facts showing that the step of ‘modifying’ data as recited in the claims requires any specific technological improvement.” Appx17. The court also held that the “non-uniform grid point” element in the appealed claims likewise does not add an inventive concept, stating that it had “already explained” in its *Alice* Step One analysis “that the language of the claims invoking grid points does not specify how grid points are generated or

analyzed,” and that the claims do not “recite using the data in a novel or improved manner.” Appx18.

B. ’753 Patent

The district court then turned to the ’753 patent, and held that those asserted claims also are not patent-eligible. Appx19-23. At the outset of its analysis, the court explained that its “discussion of patent eligibility as to the asserted claims of the ’753 Patent overlap[s] considerably with the ’104 Patent Family analysis,” and thus incorporated its earlier ’104 Family analysis that “data collection claims . . . are directed to abstract ideas that are patent ineligible under § 101.” Appx20.

Alice Step One. The court held that the claims “are directed to the abstract idea of determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device.” Appx20. The court explained that the claims “merely purport to collect and organize data in a reference database and to compare data received from an unknown location to data in the selected database of known locations.” Appx20.

In addition to other cases, including those discussed with respect to the ’104 Family, the court also observed that the ’753 patent claims are particularly similar to the ineligible location-determination claims in *Sanderling Management, Ltd. v. Snap Inc.*, 65 F.4th 698, 701-03 (Fed. Cir. 2023). Appx20-21. As the district court observed, this Court held that the *Sanderling* claims were “directed to the abstract

idea of providing information—in this case, a processing function—based on meeting a condition, *e.g.*, matching a GPS location indication with a geographic location.” Appx20-21 (quoting 65 F.4th at 703) (internal quotation marks omitted).

Furthermore, the district court explained that, although Geoscope attempted to rely on the claimed “generation of grid points as supplying a specific technological improvement . . . [,] the language of the asserted claims does not support Geoscope’s position, as the claims recite no specific solution to make the alleged improvement concrete.” Appx21. The court held that, rather than “focus[ing] on a specific means or method that would improve the relevant technology . . . [,] the asserted claims are drafted at a high level of generality.” Appx21-22. The court also rejected “each of Geoscope’s assertions regarding the novelty of grid points,” holding that, contrary to Geoscope’s arguments, “nothing in the claims requires the grid points to be (1) arranged in a ‘denser ‘map’ of known locations,’ (2) ‘determined from the analysis of calibration data,’ or (3) organized in any specific format.” Appx22 (internal citations omitted).

Alice Step Two. The court held that the claims lack an inventive concept because, for instance, they require only conventional components that function in their routine manner, such as a “database” and a “processor.” Appx22-23. In addition, again rejecting Geoscope’s reliance on the “grid point” element of the claims, the court explained that the claims do not provide “any limitation on *how* the

grid points are generated.” Appx23. Indeed, the court held, “[e]ach of the limitations of the asserted claims is broadly written, providing no boundaries or guidance on what that function is or how it is to be performed.” *Id.* The court further determined that the “claims here do not require ‘a new source or type of information, or new techniques for analyzing it.’” Appx22-23 (citation omitted).

Before the hearing on Defendants’ Rule 12(c) motion, the district court issued its claim construction order, which adopted Defendants’ proposed construction of the term “grid point” to mean “a point associated with representative calibration data for an area.” Appx2752. Although Geoscope raised the construction at the hearing, it did not submit supplemental briefing arguing that this construction changed any of its arguments. Indeed, the construction only underscores the district court’s ruling that “nothing in the claims requires the grid points to be (1) arranged in a ‘denser ‘map’ of known locations,’ (2) ‘determined from the analysis of calibration data,’ or (3) organized in any specific format.” Appx22. The court, and the parties, were well aware of what the term meant when the court issued its order holding the claims patent-ineligible.

SUMMARY OF ARGUMENT

This Court should affirm the district court’s judgment that the claims of the ’753 patent and the ’104 Family at issue on appeal are not patent-eligible under Section 101. Appx1-23.

I. As to the '753 patent, the district court correctly held at *Alice* Step One that the claims are directed to “the abstract idea of determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device.” Appx20. The claims require only the basic functions of collecting, organizing, and analyzing data to determine a location. Appx20; Appx10. The court also properly rejected Geoscope’s “assertions regarding the novelty of grid points,” which Geoscope repeats on appeal. Appx22. Contrary to these assertions, “nothing in the claims requires the grid points to be (1) arranged in a ‘denser ‘map’ of known locations,’ (2) ‘determined from the analysis of calibration data,’ or (3) organized in any specific format.” *Id.*

At *Alice* Step Two, the district court correctly held that the claims lack any inventive concept. Appx22-23. The claims provide no specific boundaries or guidance as to how to perform the basic functions they recite, and thus require no particular technological improvement. Appx23; *Yu v. Apple Inc.*, 1 F.4th 1040, 1043 (Fed. Cir. 2021) (patent eligibility determination “must focus on the language of the [a]sserted [c]laims themselves,” and *unrecited* features are irrelevant to the analysis) (quoting *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020) (alterations in original)). Indeed, the only components for performing these functions found in either of the claims are nothing more than a conventional “database” and “processor” operating as intended. Appx23.

II. As to the '104 Family, the district court correctly held at *Alice* Step One that the claims are directed to the abstract idea of “determining location based on data.” Appx10. These claims “focus on the abstract concept of data collection and modification for the purpose of geolocation of mobile devices.” Appx11. The court properly rejected Geoscope’s two primary arguments, which Geoscope repeats on appeal. First, as with the '753 patent, Geoscope relies heavily on the “grid point” limitation of the '104 Family claims to again argue that the “grid points” are “unconventional data structures” that provide a “denser” map of known locations for use in geolocation. Br. 58-61. But this element of “gathering calibration data for non-uniform grid points” “merely involve[s] collecting a certain kind of data without requiring a new or improved manner of collecting, using, or creating that data,” and the claims are silent on how the “grid points” should be structured. Appx16-17. Second, Geoscope argues that the step of “modifying” data confers patent eligibility because it unconventionally eliminates disparities between indoor and outdoor data. Br. 57. The claims recite no such requirement; indeed, the appealed claims do not even use the words “indoor” or “outdoor.” Appx12-13. And in any event, “modifying” data itself is abstract. *Id.*

At *Alice* Step Two, the district court correctly held that the claims lack any inventive concept. Appx17-18. As to the appealed claims specifically, the court held that the “grid points” element is insufficient to confer an inventive concept

because the claims do “not specify how grid points are generated or analyzed,” or “recite using the data in a novel or improved manner.” Appx18.

ARGUMENT

I. Standard of Review

This Court reviews a “district court’s ultimate conclusion on patent eligibility de novo.” *Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1359 (Fed. Cir. 2020) (citation omitted).

Although patent eligibility “may involve underlying questions of fact,” “not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry.” *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1314 (Fed. Cir. 2021) (citation omitted). Thus, “[l]ike other legal questions based on underlying facts, this question may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the substantive standards of law.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). This Court also has upheld a grant of judgment on the pleadings on the basis of patent ineligibility after claim construction has occurred. *See, e.g., PersonalWeb Techs.*, 8 F.4th at 1313-14, 1319.

II. The Claims of the '753 Patent Are Not Patent-Eligible

Under the two-step *Alice* framework for determining patent eligibility, Step One asks whether the claims are directed to an ineligible “concept,” such as an “abstract idea.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217-18 (2014). If so, Step Two asks whether the claims recite a specific “inventive concept” that “amounts to significantly more than a patent upon the [abstract idea] itself.” *Id.* (citation omitted). At both steps, the asserted claims of the '753 patent are not patent-eligible.

A. The Claims Fail *Alice* Step One

1. The district court correctly held that the asserted claims of the '753 patent are directed to “the abstract idea of determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device.” Appx20. As shown below in claim 1, at the heart of these claims is nothing more than the broadly recited functions of collecting, organizing, and analyzing data to determine a location (*supra* at pp. 4-5):

Claim 1 of the '753 patent	Function
A method of determining the location of a mobile device in a geographic region comprising the steps of:	Abstract idea of determining a mobile device's location based on data
(a) providing calibration data for each of one or more calibration points in a geographic region, said calibration data having one or more characterizing parameters;	Collecting data
(b) generating one or more sets of grid points for said calibration data;	Organizing data

(c) receiving at least one network measurement report from a mobile device at an unknown location in said geographic region;	Collecting data
(d) evaluating said at least one network measurement report with each of said sets of grid points as a function of select ones of said characterizing parameters;	Analyzing data
(e) selecting a set of grid points as a function of a predetermined criteria; and	Analyzing data
(f) determining the location of a mobile device in said geographic region as a function of said selected set of grid points.	Analyzing data

As shown above, “the limitations of the asserted claims are drafted at a high level of generality that they are themselves directed at abstract concepts.” Appx21-22. For example, although the claims recite “providing calibration data,” “generating one or more sets of grid points for calibration data,” and “selecting a set of grid points as a function of a predetermined criteria,” the claims fail to specify *how* the calibration data is provided or *what* it contains; *how* the grid points are generated or structured; or what the “predetermined criteria” are. *See Elec. Power*, 830 F.3d at 1355 (“[The] [i]nquiry therefore must turn to any requirements for *how* the desired result is achieved.”). In addition, the claims recite “evaluating” a “network measurement report,” “selecting a set of grid points,” and “determining the location of a mobile device” as a “function” of a “parameter,” “predetermined criteria,” or “selected set of grid points,” respectively. But the claims do not specify what functions are actually required to perform those steps. Thus, the claims lack “the specificity required to transform a claim from one claiming only a result to one

claiming a way of achieving it.” *SAP*, 898 F.3d at 1167; *see also Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1358 (Fed. Cir. 2023) (holding ineligible claims that “fail to recite a specific solution to make the alleged improvement . . . ‘concrete’ and at most recite abstract data manipulation”); Appx21.

The claims thus do not provide a concrete solution to geolocation, and at their core they merely require collecting, organizing, and analyzing data to determine location. But this is a “basic function” that “has been performed by humans throughout history,” even before the invention of computers. Appx10; Appx20.⁷ For instance, humans have long been able to determine their location based on visible landmarks and other information they can perceive in their environment (*e.g.*, the location of a mountain or building, stars, or sounds of running water).

As the district court correctly recognized, this Court has held ineligible claims that were similarly directed to the “mere collection, analysis, and outputting of data,” including for the purpose of determining location. Appx10-11 (citing, *e.g.*, *Content Extraction*, 776 F.3d at 1347; *Automated Tracking Sols.*, 723 F. App’x at 991; *IBM*, 50 F.4th at 1378; *Elec. Power*, 830 F.3d at 1353-54 (holding ineligible claims to

⁷ Given the overlap of the concepts to which the ’753 patent and ’104 Family claims are directed, for its ’753 patent analysis the district court expressly applied and built upon its earlier analysis regarding the ’104 Family claims. Appx20. Thus, Geoscope’s repeated criticism of the length of the court’s analysis as to the ’753 patent should be rejected. *See, e.g.*, Br. 33, 39, 53; *Tesco Corp. v. Nat’l Oilwell Varco, L.P.*, 804 F.3d 1367, 1379 (Fed. Cir. 2015) (“As . . . we have noted in many contexts, Courts of Appeals review judgments, not opinions.”).

“collecting information, analyzing it, and displaying certain results of the collection and analysis”)). For example, the claims of the ’753 patent are similar to the ineligible *Content Extraction* claims that were directed to “data collection, recognition, and storage” (776 F.3d at 1347); the ineligible *Automated Tracking Claims* that were focused on “collecting data from sensors, analyzing that data, and determining results based on the analysis of data” for the purpose of “locating, identifying, and/or tracking of an object” (723 F. App’x at 991, 993); and the ineligible *IBM* claims that were directed to “collect[ing] information” and “comprehending the meaning of that collected information[] and indication of the results” to perform a “method for coordinated geospatial and list-based mapping” (50 F.4th at 1375, 1378 (citation omitted)). Appx10-11; *see also* Appx20-21.

As the district court also correctly recognized, the ’753 patent claims are particularly similar to the ineligible claims in *Sanderling*, which were directed to determining location based on data collected and organized in a database. Appx20-21 (citing 65 F.4th at 701-03). The *Sanderling* claims “required ‘access[ing] a database storing’ various functions associated with ‘a geographic location,’ ‘receiving . . . a Global Positioning System (GPS) location indication from each of a plurality of mobile devices,’ ‘matching . . . each said GPS location indication with said geographic location’ in the database, and then selecting a ‘digital image processing function’ for use based on the geographic location.” Appx21 (quoting

Sanderling, 65 F.4th at 701-02). This Court held that the claims were directed to the abstract idea ““of providing information—in this case, a processing function—based on meeting a condition,’ *e.g.*, matching a GPS location indication with a geographic location.” *Id.* (quoting 65 F.4th at 703).

Here, the asserted claims of the ’753 patent are even simpler than those in *Sanderling*. The ’753 patent claims require nothing more than organizing reference data into a database and then determining a geographic location based on information stored in that database. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1366 (Fed. Cir. 2018) (holding ineligible claims “directed to the abstract idea of using a generic computer to collect, organize, compare, and present data” (internal quotation marks omitted)). Thus, as with the ineligible claims in *Sanderling* and numerous other cases, the ’753 patent claims are directed to an abstract idea. Appx20-22.

2. Geoscope does not dispute the district court’s holding that the claims of the ’753 patent broadly recite the concepts of collecting, organizing, and analyzing data to determine location. Appx20-21. Nor does Geoscope dispute that these concepts are “long-prevalent” methods of “organizing human activity,” or that the claims themselves fail to specify precisely *how* to perform them. Appx10, Appx20-22 (additionally incorporating its discussion at Appx10-11); *see, e.g., Realtime Data LLC v. Array Networks Inc.*, Nos. 2021-2251, -2291, 2023 WL 4924814, at *9-10 (Fed. Cir. Aug. 2, 2023) (nonprecedential) (holding ineligible

claims that failed to “explain how to” perform “data manipulation” functions and instead were “recited at a high ‘level of result-oriented generality’”) (quoting *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1152 (Fed. Cir. 2019)). In addition, Geoscope ignores the “common law methodology” approach to patent-eligibility determinations and makes no attempt to distinguish—or even address—*Sanderling* and the district court’s numerous other cited cases involving ineligible claims to collecting, organizing, and analyzing data, including for the purpose of determining location. Appx20-21; Appx10-11; *cf. In re Killian*, 45 F.4th 1373, 1383 (Fed. Cir. 2022) (reiterating the “common law methodology” approach to “decid[ing] cases arising under § 101 through comparison to . . . prior opinions”) (internal quotation marks and citation omitted).

Instead, Geoscope offers four principal arguments challenging the district court’s judgment. Br. 33-51. All of them fail.

2a. Geoscope’s lead argument is that the district court held in its claim construction order that the term “grid point” must require “analyzing calibration data” but then did not “address—or even consider—its claim constructions” in its Step One analysis. Br. 34-40. This is nothing more than misdirection. Geoscope’s characterization of the district court’s construction is both wrong and irrelevant. As an initial matter, despite citing several cases to allegedly support its argument (Br. 34-35), Geoscope identifies no precedent requiring a district court to expressly

address its earlier-issued claim constructions in its later Section 101 analysis. *See Tesco*, 804 F.3d at 1379 (“Courts of Appeals review judgments, not opinions.”).

For instance, Geoscope cites *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373 (Fed. Cir. 2019), but there the Court instructed only that “if the parties raise a claim construction dispute at the Rule 12(c) stage, the district court must either adopt the non-moving party’s constructions or resolve the dispute to whatever extent is needed to conduct the § 101 analysis.” 934 F.3d at 1379. Here, by contrast, the district court had already resolved all possible claim construction disputes in its *Markman* order nearly two months before issuing its ruling on Defendants’ Rule 12(c) motion. Appx2733-2766. Indeed, in opposing Defendants’ motion, Geoscope raised no additional claim construction disputes beyond those already before the court in *Markman* proceedings. Appx2656-2676. Geoscope only suggested for the first time at the hearing on Defendants’ Rule 12(c) motion that the district court’s construction of “grid point” rendered the appealed claims patent-eligible. Appx2900; Appx2926-2927. Geoscope forfeited this argument by failing to raise it in its briefing, even after Defendants had urged that construction throughout *Markman* proceedings. *SmartGene, Inc. v. Advanced Bio. Lab’ys, SA*, 555 F. App’x 950, 954 (Fed. Cir. 2014) (“It is well established that arguments that are not appropriately developed in a party’s briefing may be deemed waived.”). But, in any case, the court’s construction does not affect—and indeed only underscores—its determination that

the claims do not “requir[e] a new or improved manner of collecting, using, or creating . . . data,” and “do not articulate with specificity *how* the grid points are determined or analyzed.” Appx16-18; *see* Appx22-23.

The district court’s reasoning only highlights the liberties Geoscope is taking in characterizing the court’s construction of “grid point” on appeal. Contrary to Geoscope’s argument, the court never construed “grid point” to require specifically analyzing calibration data. Nor did either party propose such a construction. Appx2750-2752. Instead, the court’s “final construction” of the term “grid point” was simply: “a point associated with representative calibration data for an area.” Appx2751-2752. Geoscope relies heavily on a passing reference in the court’s order to “what must be done to arrive” at a grid point. Br. 37 (citing Appx2751). But in that passage, the court was merely rejecting Geoscope’s reliance on the Abstract’s reference to analyzing calibration data, explaining that this single statement in the Abstract was not relevant to answering the question at issue for the construction of “grid point”: defining “what a grid point *is*.” Appx2751. The passage was not incorporated into the court’s construction of the term “grid point,” and neither Geoscope nor Defendants argued that it should be. Lest there be any doubt, the district court removed it when it issued its Rule 12(c) order two months later noting

that the claims “do not articulate with specificity *how* the grid points are determined or analyzed.” Appx17.⁸

Even if Geoscope were right about the district court’s construction, however—and it is not—that construction is fully consistent with its decision holding the claims patent-ineligible under Section 101. The mere observation that “grid points” require analyzing “calibration data” (which is wrong for the reasons above) does not save them from ineligibility because mere data analysis or identification of the type of data to be analyzed is itself abstract and does not confer eligibility, as this Court has repeatedly held. *See, e.g., Elec. Power*, 830 F.3d at 1353-55 (ineligible claims involving “analyzing information”); *Automated Tracking*, 723 F. App’x at 993 (ineligible claims to “collecting data from sensors” and “analyzing that data”). This Court likewise has explained that “[a]s many cases make clear, even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP*, 898 F.3d at 1168 (quoting *Elec. Power*, 830 F.3d at 1353, 1355). Consistent with this precedent, the district court

⁸ Geoscope has not appealed the court’s construction of “grid point” (or any other aspect of the claim construction order) to append a requirement of analyzing calibration data. Because it did not raise such an argument below, it is now forfeited. *TVIIM, LLC v. McAfee, Inc.*, 851 F.3d 1356, 1363 (Fed. Cir. 2017) (“[A] party may not introduce new claim construction arguments on appeal or alter the scope of the claim construction positions it took below.”) (citation omitted).

correctly observed in its ruling that “the element of data analysis . . . must be directed to a *specific* solution to make an alleged improvement concrete and that would ‘transform [the] claim from one claiming only a result to one claiming a way of achieving it.’” Appx21 (quoting *SAP*, 898 F.3d at 1167) (emphasis in original). Here, Geoscope fails to explain how the concept of analyzing calibration data contributes a specific, concrete, and *non-abstract* improvement that would save the claims from ineligibility. *See* Br. 34-40.

2b. Geoscope also contends that the district court erred by rejecting Geoscope’s assertion that the claims require arranging grid points “in a ‘denser ‘map’ of known locations.’” Br. 43. Geoscope argues that the claimed grid points differ from “conventional grids,” which Geoscope says “are predefined— independently of any calibration data.” Br. 44.

Geoscope’s argument fails for several reasons. To begin, nothing in the claims requires that the recited “grid points” provide a “denser ‘map’ of known locations.” Appx22. The claims are silent on the relationship between the grid points and the number of known locations. Because the patent eligibility determination “must focus on the language of the [a]sserted [c]laims themselves,” *Yu*, 1 F.4th at 1043 (quoting *TecSec*, 978 F.3d at 1292), such *unrecited* features “are irrelevant” to the analysis, *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1293 (Fed. Cir. 2020).

Regardless, simply having more data points (more information) in a given map area—“a denser ‘map’” (Br. 43)—is itself an abstract concept. *See Elec. Power*, 830 F.3d at 1355; *SAP*, 898 F.3d at 1167 (“‘Information as such is an intangible,’ hence abstract . . .”) (citing *Elec. Power*, 830 F.3d at 1353). Indeed, Geoscope’s own argument highlights this fundamental problem, conceding that being “arranged in a ‘denser map’ of known locations” is merely a “*concept* [that] is inherent in the claimed grid points.” Br. 43 (emphasis added). This Court has held that “[a]dding one abstract idea . . . to another abstract idea . . . does not render [a] claim non-abstract.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). Here, adding the abstract concept of having more data points in a given map area to the other abstract ideas of collecting, organizing, and analyzing data to determine location does not “render the claim[s] non-abstract.” *Id.*

This Court also should reject Geoscope’s argument that the claimed grid points provide an advance beyond “conventional grids” because the conventional grids were “predefined—independently of any calibration data.” Br. 44. As a preliminary matter, Geoscope’s argument is entirely conclusory and was never raised in the district court. It therefore is forfeited. *Forest Lab’ys, LLC v. Sigmapharm Lab’ys, LLC*, 918 F.3d 928, 933 & n.1 (Fed. Cir. 2019) (holding that the appellant forfeited the argument that claim construction would render a claim indefinite); *Vanda Pharm. Inc. v. W.-Ward Pharm. Int’l Ltd.*, 887 F.3d 1117, 1137

(Fed. Cir. 2018) (“The Supreme Court has observed that as a ‘general rule . . . a federal appellate court does not consider an issue not passed upon below.’”) (citing *Singleton v. Wulff*, 428 U.S. 106, 120 (1976)); *Cisco Sys., Inc. v. Uniloc 2017 LLC*, 813 F. App’x 495, 498-99 (Fed. Cir. 2020) (reaffirming that “conclusory statements” about patent eligibility “d[o] not preclude dismissal” on the basis of patent eligibility).

Even if the Court were to consider it, Geoscope’s new argument appears to suggest that the claims require generating a purportedly unconventional, *non-uniform* grid as opposed to a conventional, uniform grid. But nothing in the claims requires generating a *non-uniform* grid or specifies *how* to perform that function. Thus, the Court should reject Geoscope’s argument as irrelevant. *Am. Axle*, 967 F.3d at 1293. For the same reasons, this Court should ignore Geoscope’s repeated, unsupported assumption that the “grid points” recited in the claims are “non-uniform grid points,” which finds no basis in the claim language.⁹ *See, e.g.*, Br. 40-41.

2c. Geoscope also argues that the district court erred by rejecting Geoscope’s argument that the claims require “new data structures”—the claimed

⁹ Indeed, the parties agreed at the *Markman* hearing that the grid points claimed in the ’753 patent could be uniform or non-uniform, but that the examples in the specification happened to fall in the latter category. Appx2560; Appx2569-2570. Even if *non-uniform* grid points were non-abstract (and they are not), this Court has made clear that “where there are multiple covered embodiments, and not all covered embodiments are patent-eligible,” the claims are not patent-eligible. *Mentor Graphics Corp. v. Eve-USA, Inc.*, 851 F.3d 1275, 1294-95 (Fed. Cir. 2017).

“grid points”—that “alter the normal operation of the underlying technology.” Br. 45-46. Yet again, nothing in the claims specifies any particular “data structure” for the recited “grid point,” much less a data structure that is purportedly “new” in some particular respect. The court’s construction of “grid point”—which Geoscope has not appealed—requires no specific “data structure” at all. Instead, a “grid point” is simply non-patent-eligible *data*—“a point associated with representative calibration data for an area.” Appx2751-2752.

For that reason, Geoscope’s reliance on cases like *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), and *Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900 (Fed. Cir. 2022), is badly misplaced. Br. 45-46; Appx22. In *Enfish*, the claims were “specifically directed to a *self-referential* table for a computer database,” an improved structure for holding data that this Court emphasized was “reflected in [the] claim language.” 822 F.3d at 1337 (emphasis in original). The *Enfish* claims, as construed, specified a “four-step algorithm” for creating and organizing such a table that resulted in multiple technological “benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements.” *Id.* at 1336-37. Likewise, the claim in *Adasa* recited “a specific, hardware-based RFID serial number data structure designed to enable technological improvements to the commissioning process”; namely, the claim as construed required that the “data structure of the serial number space” “include a

serial number selected from an allocated block and that this serial number comprise two components: (1) a limited number of MSBs, i.e., a limited, predefined sequence of higher order bits at the leading end of the serial number, and (2) remaining bits of lesser significance.” *Id.* (citation omitted); *see also id.* at 909.

The claims here are nothing like those in *Enfish* or *Adasa*. They do not specify any structure for the claimed “grid points” at all, much less a new one. And Geoscope identifies nothing in the claims or the court’s “grid point” construction that requires a specific data structure. *See Appx22; Appx2751-2752*. As a result, nothing in the claims as construed constitutes “a *specific* improvement to the way computers operate,” *Enfish*, 822 F.3d at 1336 (emphasis added), or a “*specific and concrete* technological advance,” *Adasa*, 55 F.4th at 908 (emphasis added); *see Appx22*.

2d. Geoscope makes several other far-fetched attempts to analogize its claims to those at issue in other cases. Br. 46-48. Each attempt lacks merit. The claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, for example, “overr[ode] the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” 773 F.3d 1245, 1259 (Fed. Cir. 2014). Specifically, “[i]nstead of [a] computer network operating in its normal, expected manner by sending [a] website visitor to [a] third-party website that appears to be connected with the clicked advertisement, the claimed system generate[d] and direct[ed] the visitor to the

above-described hybrid web page that present[ed] product information from the third-party and visual ‘look and feel’ elements from the host website.” *Id.* at 1259-60. The claims therefore provided a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks”; namely, “retaining website visitors” that would have been “instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink” in a conventional system. *Id.* at 1257.

Here, unlike in *DDR Holdings*, Geoscope fails to identify in the ’753 patent claims any requirement that “overrides” the normal operation of grid points or improves the technical operation of the system as compared to what grid points had long been used for in the field of geolocation: to serve as known reference points on a grid with which to compare data measured by a mobile device. Appx190 (11:8-13) (“[A] grid-based pattern matching system such as that disclosed herein is typically dependent on stored received signal level measurements that accurately reflect the levels that are likely to be reported by the mobile device to be located.”).

Geoscope also misapplies *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017). Br. 47-48. In *Thales*, this Court held that claims to a “system for tracking the motion of an object relative to a moving reference frame” were patent-eligible because they used “inertial sensors in a nonconventional manner” and required a “particular,” “unconventional configuration of [the] sensors” “to reduce

errors in measuring the relative position and orientation of a moving object on a moving reference frame.” 850 F.3d at 1344, 1348-49; *see also* Appx11-12. Unlike the *Thales* claims, the ’753 patent claims do not require the use of any technology in a “non-conventional manner” or any “particular” “unconventional configuration” of components. Instead, the ’753 patent claims either recite no particular components at all for performing its broadly recited data collection, analysis, and organization functions, or they involve only well-known, conventional technology like a “processor” functioning in its routine manner. *See* Appx11-12; Appx21-23.

2e. Finally, Geoscope accuses the district court of ignoring the specification and requiring that “[e]very single aspect of the invention . . . be recited in the claims verbatim.” Br. 48-51. Geoscope is incorrect.

As Geoscope itself recognizes (Br. 49), “[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves,’ and the specification cannot be used to import details from the specification if those details are not claimed.” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) (citation omitted). The district court’s analysis correctly recognized and applied this law. The court considered the specification as part of its ruling (*see, e.g.*, Appx19), and indeed as part of its claim construction order (Appx2748-2756), and found that the claims were nonetheless patent-ineligible.

Geoscope attempts to paint the district court’s correct application of the law

as improperly requiring that “[e]very single aspect of the invention . . . be recited in the claims verbatim.” Br. 50. But the problem with Geoscope’s patent-eligibility arguments—*e.g.*, that the invention provides a “denser ‘map’ of known locations,” requires “analysis of the similarity of the calibration data,” and creates “novel, unconventional data structures” (Br. 40-45)—is not that these concepts are in the claims using different language; it is that they are not in the claims at all. For that reason, Geoscope’s reliance on cases like *KPN* and *SRI International, Inc. v. Cisco Systems, Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019), is misplaced. Geoscope ignores that the patent-eligible advances in those cases (as in all of this Court’s precedent) were, in fact, rooted in the language of the claims. Br. 50. In *KPN*, the “claims specifically recite[d]” the concrete, patent-eligible advance performed by a specific “permutating device.” 942 F.3d at 1151-53. And the *SRI* claims themselves “recite[d] using network monitors to detect suspicious network activity based on analysis of network traffic data, generating reports of that suspicious activity, and integrating those reports using hierarchical monitors.” 930 F.3d at 1303. Here, in contrast, the district court correctly held that what *Geoscope* identified as conferring patent eligibility is nowhere in the ’753 patent claims and thus cannot save them from ineligibility. Appx21-22. That analysis is fully consistent with this Court’s precedent, including *KPN* and *SRI*.

B. The Claims Fail *Alice* Step Two

To survive Step Two, “an inventive concept must be evident *in the claims*.” *RecogniCorp*, 855 F.3d at 1327 (emphasis added). This “inventive concept must be ‘sufficient to ensure that the patent in practice amounts to *significantly more*’ than a patent on the abstract idea.” *ChargePoint*, 920 F.3d at 773 (emphasis added and citation omitted). Claims that “merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 221.

1. The elements of the ’753 patent claims, whether considered alone or in combination, fail to offer any inventive concept beyond the abstract idea found at the heart of the claims. Appx22-23. Claim 1, for example, recites “providing,” “generating,” “receiving,” “evaluating,” and “selecting” data to “determin[e] the location of a mobile device.” Appx214 (claim 1). As the court explained, “[e]ach of the limitations of the asserted claims is broadly written, providing no boundaries or guidance” as to how to perform the “basic function[s]” they recite, including the step of “generating one or more sets of grid points.” Appx22-23. The claims “do not require ‘a new source or type of information, or new techniques for analyzing it.’” Appx22-23 (quoting *Elec. Power*, 830 F.3d at 1355).

A review of each step recited in the two asserted claims only underscores that they lack any inventive concept. The step of “providing calibration data . . . said

calibration data having one or more characterizing parameters” fails to specify *how* the calibration data is “provided.” Although the specification provides a laundry list of “exemplary” characterizing parameters (Appx210 (51:42-58)), there is no dispute that the examples are all known measurement techniques in the location determination field, such as signal strength, timing advance, time difference of arrival, cell ID, and wireless network state—and, in any event, the claims specify no particular parameters at all. *See, e.g.*, Appx189 (9:4-30, 10:9-16); Appx62 (1:21-24); Appx84 (1:27-30); Appx103 (1:28-31); *see Elec. Power*, 830 F.3d at 1355.

In addition, “generating one or more sets of grid points for said calibration data” merely involves reorganizing the initially collected data. Because the claims do not limit *how* the recited set of grid points should be generated for the calibration data, this step amounts to no more than basic data organization without requiring any particular technological improvement. *See Elec. Power*, 830 F.3d at 1355. Furthermore, “receiving at least one network measurement report from a mobile device at an unknown location in said geographic region” simply requires collecting data. As the ’753 patent itself acknowledges, network measurement reports were “known in the art.” Appx189 (9:53-55). The claims fail to specify how the network measurement reports are received, much less require a specific technological improvement to do so. *See Elec. Power*, 830 F.3d at 1355.

The step of “evaluating said at least one network measurement report with each of said sets of grid points as a function of select ones of said characterizing parameters” also simply involves the basic function of comparing data. The limitation recites using “a function” without specifying what that function is. *See id.* at 1355-56. And, regardless, an unspecified “function” is no more than a patent-ineligible mathematical concept. *In re Bd. of Trustees of Leland Stanford Junior Univ.*, 991 F.3d 1245, 1250 (Fed. Cir. 2021) (“Courts have long held that mathematical algorithms for performing calculations, without more, are patent ineligible under § 101.”).

Finally, the steps of “selecting a set of grid points as a function of a predetermined criteria” and “determining the location of a mobile device in said geographic region as a function of said selected set of grid points” involve only the basic concepts of analyzing data using undisclosed mathematical algorithms. The claims impose no limitations on what “functions” or “predetermined criteria” are used or required to carry out these steps. *See Elec. Power*, 830 F.3d at 1355.

System claim 32 adds a generic “processor” and “database.” Appx216 (63:49-67). But these are conventional computer components that function in their routine manner and thus “add nothing to the inventiveness of the claimed invention.” Appx23; *Sanderling*, 65 F.4th at 705 (explaining that the benefits from “applying the abstract idea on a computer” do not “provide a sufficient inventive concept”)

(citation omitted). Indeed, “a database adds nothing to the inventiveness of the claimed invention. And a processor that receives data and is ‘programmed’ to generate and evaluate data is well-known, conventional, and generic technology that does not transform the claims into an inventive concept.” Appx23 (citation omitted); *Mortgage Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1324-25 (Fed. Cir. 2016) (holding that the claims lacked an inventive concept because they “‘add[ed]’ only generic computer components such as a[] . . . ‘database’ . . . that d[id] not satisfy the inventive concept requirement”); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (holding that the claims lacked an inventive concept because they “recite[d] both a generic computer element—a processor—and a series of generic computer ‘components’ that merely restate their individual functions”).

Even when considered in combination, these claim elements fail to provide an inventive concept that amounts to significantly more than “the abstract idea of determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device.” Instead, as discussed, each of these claim elements either is directed to an abstract concept that relates to the same abstract idea of “determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device” (Appx20), or requires nothing more than using conventional

technology functioning in its routine manner to carry out that abstract idea. *ChargePoint*, 920 F.3d at 771 (“Adding one abstract idea . . . to another abstract idea . . . does not render [a] claim non-abstract.”) (citation and alterations omitted).

2. Geoscope largely does not dispute any of the foregoing analysis. Instead, its disagreement with the district court’s Step Two determination simply regurgitates its Step One argument focusing on “grid points.” Geoscope contends that “grid points” “are inventive and unconventional” and that the claims “indisputably include limitations reciting the generation of grid points from calibration data and the further use of those grid points for geolocation.” Br. 54-55.

That is wrong. As the district court correctly determined, the recited “grid point” data element fails to supply an inventive concept. Appx22-23. As a preliminary matter, data or information itself—which is all the claimed grid points are—is abstract and therefore does not confer patent eligibility. *SAP*, 898 F.3d at 1167 (“‘Information as such is an intangible,’ hence abstract . . .”) (citing *Elec. Power*, 830 F.3d at 1353). In any event, the claims’ recitation of “generating” grid points fails to “provid[e] any limitation on *how* the grid points are generated” and the step of “evaluating said at least one network measurement report with each of said sets of grid points” “merely requires performing the basic function of comparing data.” Appx23; *Elec. Power*, 830 F.3d at 1353-55. In other words, as the district court explained in its Step One analysis, the recited “grid point” element

amounts to no more than the abstract idea itself: data collection, organization, and analysis. Appx20-21; *supra* pp. 21-37. Just as these steps already formed the basis for the abstract idea, none is sufficient to add an inventive concept beyond that abstract idea. *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“It has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.”).

3. Finally, relying on *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019), Geoscope argues that the district court “failed to credit the allegations in the complaints regarding inventiveness, leading it to improperly resolve factual disputes against Geoscope.”¹⁰ Br. 52-54. This argument fails for several reasons.

As even Geoscope concedes (Br. 53), the court *did* consider those allegations in the complaint, noting Geoscope’s allegations that the ’753 patent “involves purported improvements to methods of geolocation using ‘grid points’ based on calibration data,” and “led to a more robust and denser map of known locations that could be used to locate a mobile device.” Appx19 (citing, *e.g.*, Appx369-370 ¶¶ 58,

¹⁰ Geoscope also broadly and incorrectly contends that “[t]he *Alice* Step Two inquiry is a question of fact,” Br. 52, citing this Court’s decision in *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018). That is not what this Court held in *Aatrix*. Rather, in *Aatrix*, this Court explained that “[w]hile the ultimate determination of eligibility under § 101 is a question of law,” “there *can be* subsidiary fact questions which must be resolved en route to the ultimate legal determination.” 882 F.3d at 1128 (emphasis added).

60) (internal quotation marks omitted). The court held that, even considering those facts in the most favorable light for Geoscope, merely “generating” “grid points” does not supply an inventive concept as a matter of law. For instance, the step amounts to no more than a broad instruction “without providing any limitation on *how* the grid points are generated.” Appx23. Indeed, as discussed above, the court had already determined at Step One that the “grid point” claim element “do[es] not focus on a specific means or method that would improve the relevant technology” and instead is—like the rest of the claim elements—“drafted at a high level of generality.” Appx21-22. Contrary to Geoscope’s assertion (Br. 53 n.8), the court was not required to restate in its Step Two analysis the argument that Geoscope made—and that the court had already rejected—at Step One. *See Gen. Elec. Co. v. Williams*, 750 F.3d 1324, 1331 (Fed. Cir. 2014) (stating that a court is not required to “dismiss th[e] same evidence for [a] second time”).

Thus, Geoscope’s reliance on *Cellspin* is misplaced. In *Cellspin*, this Court held only that a court should consider well-pleaded allegations about inventiveness where “what makes the claims inventive is *recited by the claims*.” 927 F.3d at 1317-18 (emphasis added). Here, the district court already had rejected—correctly—Geoscope’s allegations as having no basis in the claim language. Appx21-22.

Furthermore, the allegations at issue are merely conclusory statements that are insufficient to survive a Rule 12 motion. Significantly, the allegations fail to explain

how, for instance, the claims require “generat[ing] additional non-uniform grid points” to result in a “robust and denser ‘map’ of known locations.” Appx275-76 ¶ 60; Appx370 ¶ 60. And, again, the allegations find no support in the language of the claims. Thus, the court correctly declined to credit these conclusory assertions. *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1365-66 (Fed. Cir. 2023) (holding that “conclusory allegations” in the complaint “that the prior art lacked elements of the asserted claims are insufficient to demonstrate an inventive concept”); *Dropbox, Inc. v. Synchronoss Techs., Inc.*, 815 F. App’x 529, 538 (Fed. Cir. 2020) (agreeing with the district court that “conclusory allegations” in the complaint concerning patent eligibility were “insufficient to survive a motion to dismiss”).

III. The Appealed Claims of the ’104 Family Are Not Patent-Eligible

The same problems doom the appealed claims of the ’104 Family. Like the claims of the ’753 patent, the ’104 Family claims also are directed to “determining location based on data,” as the district court correctly held. Appx10. The only distinctions relevant here are that the ’104 Family claims also require “modifying” observed network measurement data, and that they specify that the grid points are “non-uniform.” Neither saves them from ineligibility.

A. The Claims Fail *Alice* Step One

1. The “principal steps” of the appealed claims of the ’104 Family “are both broad and generic”: “‘determining a location of a mobile station’ by (1) ‘providing a database’ of previously-collected data; (2) ‘collecting’ observed network measurement data, (3) ‘modifying’ that data; and (4) ‘comparing’ the modified data with the database.” Appx10.

Thus, the district court correctly determined that, similar to the claims of the ’753 patent, the claims of the ’104 Family “focus on the abstract concept of data collection and modification for the purpose of geolocation of mobile devices.” Appx10-11 (citing, *e.g.*, *Elec. Power*, 830 F.3d at 1353-54; *Content Extraction*, 776 F.3d at 1347; *Automated Tracking*, 723 F. App’x at 991); *see supra* pp. 11-18.¹¹

Contrary to Geoscope’s assertion, the “modifying” step of the claims does not confer patent eligibility. Appx12-14. As it argued to the district court, Geoscope contends on appeal that this “modifying” step “eliminate[s] disparities” between data collected “outdoors versus indoors,” which “prevent[s] an ‘apples and oranges’

¹¹ The district court disagreed with Defendants that claim 1 of the ’494 patent was representative of the challenged claims of the ’104 Family. Appx8-9. In its opening brief, Geoscope acknowledged that the appealed claims of the ’104 Family all “add the same limitation to the independent claim from which they depend: ‘wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region.’” Br. 55-56. Thus, claim representativeness, including whether unappealed claim 1 of the ’494 patent is representative of the ’104 Family claims, is not at issue in this appeal.

comparison.” Br. 57-58; Appx2702. Geoscope argues that this “represents a patent-eligible improvement to the process of geolocation.” Br. 57-58; Appx2702. But the claims themselves—the “focus” of the patent-eligibility inquiry—are not limited to modifying data to eliminate the disparities between indoor data and outdoor data. Appx13. Indeed, the appealed claims of the ’104 Family do not even use the words “indoor” or “outdoor.” Instead, this “modifying” step “is written in extremely broad terms,” and “simply recites a method whereby one must ‘modify[] said observed network measurement data,’ without any specificity as to *how* to carry out the ‘modifying’ function.” Appx13 (emphasis in original).

As the district court also correctly observed, “Geoscope’s claimed advance—modifying data—is itself an abstract concept.” Appx14. Indeed, the specification confirms that this “modifying” function can be achieved simply by “subtracting or adding” to and from the data. Appx106 (7:7-10). This Court has held that modifying or manipulating data alone does not confer eligibility. Appx14-15 (citing, *e.g.*, *Elec. Power*, 830 F.3d at 1355) (“Merely requiring the selection and manipulation of information . . . by itself does not transform the otherwise-abstract processes of information collection and analysis.”); *Univ. of Fla. Res. Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1368 (Fed. Cir. 2019) (ineligible claims to the “abstract idea of collecting, analyzing, manipulating, and displaying data”) (internal quotation marks omitted); *Hawk Tech.*, 60 F.4th at 1358 (ineligible claims that “at most recite[d]

abstract data manipulation”); *see also Realtime*, 2023 WL 4924814, at *10 (ineligible “‘data manipulation’ claims that are recited at a high ‘level of result-oriented generality’ and that lack ‘sufficient recitation of *how* the purported invention[s]’ accomplish the results”) (quoting *KPN*, 942 F.3d at 1152).

Finally, as the district court correctly determined, the “grid point” element recited in the appealed claims—“wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region”—does not confer patent eligibility. Appx16-17. As the court explained, contrary to Geoscope’s assertion that the “‘grid point’ component is ‘something new that must be determined from the analysis of calibration data,’” the claims “merely involve collecting a certain kind of data without requiring a new or improved manner of collecting, using, or creating that data,” and fail to “articulate with specificity *how* the grid points are determined or analyzed.” *Id.*; *see also SAP*, 898 F.3d at 1167 (citing *Elec. Power*, 830 F.3d at 1353).

2. On appeal, Geoscope does not dispute that the claims’ “principal steps” of collecting, modifying, and comparing data are “both broad and generic,” or that “the basic function of determining location based on the collection and analysis of data” was well-known “in the context of mobile devices.” Appx10. And Geoscope addresses none of the district court’s cited cases in which this Court held ineligible

claims similarly focused on the abstract idea of collecting, modifying, and analyzing data, including to determine location. Appx10-14; *cf. Killian*, 45 F.4th at 1383.

Instead, Geoscope makes two primary arguments challenging the district court’s judgment.¹² First, Geoscope repeats its assertion that the claims involve modifying data to “eliminate disparities” between *outdoor* data and *indoor* data, which Geoscope contends arise from “differences in signal propagation outdoors versus indoors.” Br. 57. As explained above, however, the claims are not limited to “eliminating disparities” between outdoor and indoor data (nor are the words “outdoor” or “indoor” even recited in the claims), and the mere instruction of “modifying” data—as recited in the claims—is itself an abstract idea. Appx13-14; *supra* pp. 46-47. Geoscope simply ignores the district court’s reasoning without attempting to explain why it was wrong. Br. 57-58.

Second, Geoscope again heavily relies on the recited “grid point” data. Br. 58-61. But Geoscope fails to confront the district court’s rejection of this claim element as a basis for patent eligibility; namely, that these claims “merely involve collecting a certain kind of data without requiring a new or improved manner of

¹² Geoscope again attempts to mischaracterize the district court’s analysis as “almost non-existent,” focusing only on the court’s specific discussion of the additional limitation recited in the appealed claims of the ’104 Family, which are dependent claims. Br. 60 (citing Appx16-17); *Tesco Corp.*, 804 F.3d at 1379. Geoscope ignores that the court issued a reasoned, 23-page decision that included a detailed analysis of the appealed claims’ other limitations as found in their corresponding independent claims. Appx10-17.

collecting, using, or creating that data,” and that they otherwise fail to “articulate with specificity *how* the grid points are determined or analyzed.” Appx16-17. The claim language confirms that the claims simply require a “database [that] comprises previously-gathered calibration data for one or more non-uniform grid points within said region,” without any other detail about the “non-uniform grid points” or even how the “previously-gathered calibration data” has been collected. *Id.* Geoscope’s argument thus fails for the same reasons explained above with respect to the ’753 patent. *Supra* pp. 21-37.¹³

B. The Claims Fail *Alice* Step Two

1. The district court correctly held that the elements of the appealed claims of the ’104 Family, whether considered alone or in combination, lack any inventive concept that is “‘significantly more’ than the abstract idea” of determining location based on data. Appx17-18. Each claim involves nothing more than “some limitation related to the collection, modification, or comparison of data—each of which are abstract ideas in themselves that cannot supply the inventive concept.” Appx17.

The additional limitations of the appealed claims likewise do not save the claims from ineligibility at *Alice* Step Two—and Geoscope does not contend

¹³ Not even Geoscope argues that the distinction between “grid points” in the ’753 patent claims and “non-uniform grid points” in the appealed claims of the ’104 Family makes any difference for patent-eligibility. *See, e.g.*, Br. 58 (acknowledging that “grid points” are “the same” across all appealed claims).

otherwise. Appx18. For example, claim 1 of the '358 patent merely recites “circuitry” to carry out the functions of collecting, modifying, and comparing data. Appx18; Appx90 (13:7-18, 13:27-29). As the district court determined, however, this amounts to “simply employ[ing] well-known and conventional data or components in a conventional manner.” Appx18. In addition, claim 2 of the '104 patent recites “determining which” of two signal characteristics “has a greater magnitude,” and claim 26 of the '494 patent recites “determining an average value” of selected signal characteristics. Appx67 (11:66-12:18); Appx109 (14:7-23). But these claims “fail to recite *how*” these “simple mathematical concepts” are employed and, regardless, the mathematical concepts are themselves abstract and thus “insufficient to confer an inventive concept.” Appx18 (citing *Stanford*, 991 F.3d at 1251).

Furthermore, the “non-uniform grid points” recited in the appealed claims also fail to provide the requisite inventive concept. Appx18. As the district court explained, “the language of the claims invoking grid points does not specify how grid points are generated or analyzed. Nor do the claims recite using the data in a novel or improved manner.” Appx18; *see also* Appx16-17. The claims thus “do no more than combine known techniques that yield only expected results” and include no claim elements that “amount to ‘significantly more’ than the abstract idea of determining location based on data.” Appx18.

Finally, the combination of these claim elements likewise fails to add an inventive concept because each of the claim elements either is directed to nothing more than abstract concepts related to the abstract idea of determining location based on data, or requires only well-known and conventional technology functioning in its routine manner. Thus, even when considered in combination, the claim elements provide no inventive concept beyond that abstract idea. *See, e.g., Appx17; ChargePoint*, 920 F.3d at 771.

2. Geoscope’s challenge to the district court’s Step Two analysis is limited to two aspects of the appealed claims: “modification of observed measurement data” and “non-uniform grid points.” Br. 61-62. But, again, Geoscope simply repeats its Step One arguments that the step of “modifying” data and “grid point” limitation are unconventional. *Compare* Br. 57-59, *with* Br. 61-62.

As an initial matter, both claim elements are part of the abstract idea itself and therefore cannot provide an inventive concept at Step Two. “It has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than the ineligible concept.” *BSG*, 899 F.3d at 1290. These claim elements are also themselves abstract, and therefore cannot serve as “non-abstract features” that might provide an inventive concept. *Id.* at 1291; *see supra* pp. 42-43, 46-50.

Furthermore, as to the step of “modifying” data, other than stating the bare conclusion that it is “unconventional” and “led to concrete technological benefits,” Geoscope never explains why. Br. 61. Geoscope cites its complaints in support of its assertion, but the allegations it cites focus on the purported elimination of disparities between *indoor* and *outdoor* data. Appx269-274 ¶¶ 49, 53, 57. As the district court correctly held at Step One, these arguments are irrelevant to the inquiry at hand because they are “‘not tethered to the asserted claims’ themselves.” Appx13 (quoting *Trinity Info Media*, 72 F.4th at 1364) (emphasis omitted); cf. *Cellspin*, 927 F.3d at 1317. Contrary to Geoscope’s assertions, the court was not required to reject the same incorrect argument twice and, in any event, Geoscope makes no attempt to identify any claim limitation requiring the elimination of disparities between indoor and outdoor data. *General Elec.*, 750 F.3d at 1331.

Geoscope repeats its argument regarding the “grid point” limitation of the ’753 patent, which fails for similar reasons. Geoscope merely concludes that these “non-uniform grid points” are “unconventional.” Br. 61-62. And although Geoscope again contends that the complaints “include[d] well-pleaded allegations” regarding this purportedly “inventive” aspect of the claims, the allegations in the complaints regarding the ’104 Family make no mention of “non-uniform grid points”—or even “grid points”—at all, much less allege that they are a core feature of the claims that might provide an inventive concept. Appx269-274 ¶¶ 48-57.

Thus, Geoscope's conclusory argument cannot save the claims or create a purported factual dispute at Step Two. *Trinity Info Media*, 72 F.4th at 1365-66; *Dropbox*, 815 F. App'x at 538.

CONCLUSION

For the foregoing reasons, this Court should affirm the district court's judgment that the asserted claims of the '753 patent and '104 Family are not patent-eligible under Section 101.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 26, 2024, I served a copy of the foregoing brief on all counsel of record via this Court's CM/ECF system.

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CERTIFICATE OF COMPLIANCE

1. This brief complies with the type-volume limitation of Federal Circuit Rule 32(b)(1) because it contains 12,783 words, excluding the parts of the brief exempted by Federal Circuit Rule 32(b)(2) and Rule 32(f) of the Federal Rules of Appellate Procedure.

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